



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,710	07/25/2003	Costanzo Lorenzotti	001US1	1892

21254 7590 02/24/2006

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC  
8321 OLD COURTHOUSE ROAD  
SUITE 200  
VIENNA, VA 22182-3817

EXAMINER

MATZEK, MATTHEW D

ART UNIT PAPER NUMBER

1771

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/626,710	<b>Applicant(s)</b> LORENZOTTI ET AL.	
	<b>Examiner</b> Matthew D. Matzek	<b>Art Unit</b> 1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-17 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-17 and 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/2/2005 has been entered.

***Response to Amendment***

2. The rejection of claims 23 and 26 under 35 U.S.C. 112 2<sup>nd</sup> paragraph have been withdrawn due to amendment. No new matter is contained in the amended claims. The rejection of claims 14, 24 and 27 under 35 U.S.C. 112 2<sup>nd</sup> paragraph have been withdrawn due to the term "high" being provided for in the Specification. The rejection of claims 14 and 27 has been withdrawn because fiber length ranges have been provided for in the Specification. Claims 18-20 have been canceled. The rejection of claims 14 and 27 under 35 USC § 112 1<sup>st</sup> has been withdrawn as one of ordinary skill in the art would have be able to reasonably conclude what the limitation of "substantially uniform length" is intended to mean.

***Response to Arguments***

3. Applicant's arguments filed 10/17/2005 have been fully considered but they are not persuasive.

4. Applicant argues that Quantrille does not teach an article comprising a "plurality of waste threads compris[ing] fibers having a substantially uniform length". The limitation that the natural fibers comprise waste fibers or a by-product does not provide for a patentably distinct article from that of the applied art as the manner in which the fibers are formed does not lead to a

Art Unit: 1771

unique or novel end product. The length limitation provided in claim 15 is met as the length of cotton “staple fibers” is less than 1 inch (<25.4 mm) (Textile Glossary). This fiber length anticipates the length limitation of claims 15 and 21 and as the cotton fibers are all staple fibers they have a substantially uniform length. Support for this allegation was provided along with the previous Office Action in the form of the entry “staple” in the *Textile Glossary*. Applicant argues that the claimed invention may dry at a temperature of approximately 160°C and may include 100% pure cotton. This limitation does not preclude the inclusion of other materials/fibers and is addressed as the invention of Quantrille may be made of cotton fibers.

5. Applicant argues that Cohen does not teach nor suggest a “plurality of waste threads compris[ing] fibers having a substantially uniform length”. Applicant also argues that the invention of Cohen is different than that of Applicant as the instantly claimed article may comprise 100% pure cotton fibers. The fibrous composite may contain hydroentangled cotton staple fibers (col. 9, lines 25-32). The limitation that the natural fibers comprise waste fibers or a by-product does not provide for a patentably distinct article from that of the applied art as the manner in which the fibers are formed does not lead to a unique or novel end product.

Therefore, Examiner equates the instantly claimed “waste threads of a natural fiber” to the applied cotton fibers as the applied fibers necessarily contain the constituents instantly claimed as “threads”. All cotton fibers are made of constituent parts that together constitute a fiber. The length limitation provided in claim 15 is met as the length of cotton “staple fibers” is less than 1 inch (<25.4 mm) (Textile Glossary). This fiber length anticipates the length limitation of claims 15 and 21 and as the cotton fibers are all staple fibers they have a substantially uniform length. Support for this allegation was provided along with the previous Office Action in the form of the

Art Unit: 1771

entry “staple” in the *Textile Glossary*. Applicant argues that the claimed invention may dry at a temperature of approximately 160°C and may include 100% pure cotton. This limitation does not preclude the inclusion of other materials/fibers and is addressed as the invention of Cohen may be made of cotton fibers.

6. The rejection of claims 14-17, 21-25 and 27 in view of Evans has been withdrawn as Evans teaches the use of fibers of a length well beyond those that are instantly claimed.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 14 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation set forth in claims 14 and 27 of “substantially uniform length” has not been provided for in the previous set of claims or the Specification.

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1771

8. Claims 14-17 and 21-28 are rejected under 35 U.S.C. 102(e) as being anticipate by Warlick et al. (US 2003/0127342).

Warlick et al. teach a nonwoven fabric comprising hydrodynamically entangled short-staple or “waste cotton” fibers (Abstract). The term “waste cotton fibers” is intended to mean cotton fibers of less than  $1\frac{1}{8}$ ” [0006]. The non-integrated batt of waste cotton fibers may vary between  $\frac{1}{8}$ ” and 5” in thickness [0018]. Following hydroentangling the batt will be compressed from its non-integrated state. This results in a final product of the claimed thickness. The batts have a basis weight between  $50\text{g/m}^2$  and  $200\text{g/m}^2$  [0027]. This will not change following hydroentanglement. The invention of Warlick et al. is silent as to the weight per inch of fiber length, however as the invention of Warlick et al. is made with non-allegenic natural waste cotton fibers, which is the same as claimed by Applicant the fibers of Warlick et al. necessarily anticipates the limitation of claim 23. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant’s specification it is taught to meet the instant limitations in [0041]. Claim 26 is rejected as the article of Warlick et al. calls for hydroentanglement (Abstract). This is same process (Applicant’s claim 14) used by Applicant to create the structure of claim 26.

9. Claims 14, 16, 17, 21-27 are rejected under 35 U.S.C. 102(e) as being anticipate by Putnam et al. (US 2004/0248493).

Putnam et al. teach a nonwoven fabric comprising reconstituted or regenerated (waste) fibers (Abstract). These fibers may be cotton and have a finite length [0007]. The finite

Art Unit: 1771

fiber lengths may range from 0.13-1 inches (3.3-25.4mm) or preferably 0.25-0.75 inches (6.35-19.1mm) and have a denier of 1.2 to 6.0 (3.4-17.1 micrograms per inch of fiber length) [0019]. Claim 22 is rejected as natural cotton fibers are naturally non-allergenic [0041, Applicant's Specification]. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant's specification it is taught to meet the instant limitations in [0041]. Claim 26 is rejected as one of the preferred embodiments of Putnam et al. calls for hydroentanglement (Abstract). This is same process (Applicant's claim 14) used by Applicant to create the structure of claim 26.

10. Claims 14-17 and 21-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Quantrille et al. (US Patent 5,431,991).

Quantrille et al. disclose a process of hydroentangling cotton staple fibers to form a web (col. 3, lines 30-37). Typically the web will have a basis weight ranging between 15 grams per square meter (gsm) to 200 gsm (col. 5, lines 16-20). The limitation that the natural fibers comprise waste fibers or a by-product does not provide for a patentably distinct article from that of the applied art as the manner in which the fibers are formed does not lead to a unique or novel end product. The length limitation provided in claim 15 is met as the length of cotton "staple fibers" is less than 1 inch (<25.4 mm) (Textile Glossary). Claim 22 is rejected as natural cotton fibers are naturally non-allergenic [0041, Applicant's Specification]. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant's specification it is taught to meet the instant limitations in [0041]. The invention of Quantrille et al. is silent as to the weight per inch of fiber length, however as the invention of Quantrille et al. is made with

Art Unit: 1771

non-allegenic natural cotton fibers, which is the same as claimed by Applicant the fibers of Quantrille et al. necessarily anticipates the limitation of claim 23. Claim 26 is rejected as one of the preferred embodiments of Quantrille et al. calls for hydroentanglement (col. 3, lines 32-40). This is same process (Applicant's claim 14) used by Applicant to create the structure of claim 26.

11. Claims 14-17, 21-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Cohen et al. (US Patent 5,736,473).

Cohen et al. disclose a fibrous composite structure with a basis weight of from about 6 to 400 gsm (col. 6, lines 5-10). The fibrous composite may contain hydroentangled cotton staple fibers (col. 9, lines 25-32). The limitation that the natural fibers comprise waste fibers or a by-product does not provide for a patentably distinct article from that of the applied art as the manner in which the fibers are formed does not lead to a unique or novel end product. The length limitation provided in claim 15 is met as the length of cotton "staple fibers" is less than 1 inch (<25.4 mm) (Textile Glossary). Claim 22 is rejected as natural cotton fibers are naturally non-allergenic [0041, Applicant's Specification]. Claims 24 and 25 are rejected as the applied art teaches the use of cotton staple fibers and in Applicant's specification it is taught to meet the instant limitations in [0041]. The invention of Cohen et al. is silent as to the weight per inch of fiber length, however as the invention of Cohen et al. is made with non-allegenic natural cotton fibers, which is the same as claimed by Applicant the fibers of Cohen et al. necessarily anticipates the limitation of claim 23. Claim 26 is rejected as Cohen et al. call for



hydroentanglement of staple fibers (col. 9, lines 25-31). This is same process (Applicant's claim 14) used by Applicant to create the structure of claim 26.

***Claim Rejections - 35 USC § 103***

12. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quantrille et al. (US Patent 5,431,991) as applied to claim 14 above, and further in view of Meitner et al. (US 4,426,417) as substantially set forth in the Office Action dated 8/3/2005.

13. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. (US Patent 5,736,473) as applied to claim 14 above, and further in view of Meitner et al. (US 4,426,417) as substantially set forth in the Office Action dated 8/3/2005.

14. Claims 15 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Putnam et al. (US 2004/0248493). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the article of Putnam et al. with a thickness of not less than 35 grams per square meter or a thickness in a range from 1mm to 10mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

***Conclusion***

Art Unit: 1771

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423.


The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdm

*MDM*

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700